

The Rule of 72

You now know that the concept of compounding means that your money is making more money even while you sleep. One way to see how powerful this can be is called the **Rule of 72**.

Mathematicians say that you can see how long it will take you to double your money simply by dividing 72 by the interest rate. So let's say your grandparents give you \$200 for your birthday and you want to use it to start saving for your own car. If you put the money into an account that earns 6 percent interest a year, how long will it take to grow to \$400?

$$72 \div 6\% \text{ interest} = 12 \text{ years}$$

So in 12 years, your money will have doubled to \$400. But what if your dad tells you about an account where you could earn 9 percent a year on your money?

$$72 \div 9\% \text{ interest} = 8 \text{ years}$$

Now you will have that \$400 in only eight years. By earning just a little bit more interest, you reduce the time to double your money by four years. And this doesn't include any additional money that you may put into your account over time, which would only speed up the process.

But what if eight years seems too long to wait and you want that \$400 in four years instead? The Rule of 72 can also tell you the interest rate you need to earn to double your money in a certain amount of time. So for four years it would be:

$$72 \div 4 \text{ years} = 18\% \text{ interest}$$

With only four years to invest, your money will double if you can find an investment that earns 18 percent. Of course, that may be difficult to do as the stock market typically averages only about 10 percent a year over the long term. But you can certainly see how even a small difference in the interest rate you earn can make a big difference in how quickly your money compounds—earning you more money—over time.



Exercise 3C:

The Impact of Higher Returns

Use the Rule of 72 to calculate the answers to the following questions. Show your calculation and answer for each question in the space provided.

- 1 What interest rate would be necessary to double a \$100 investment in 24 years?

- 2 How many years would it take to double \$100 if it earned interest at a rate of 8% per year?

- 3 What interest rate would be necessary to double a \$100 investment in 11 years?

- 4 How many years would it take to double \$100 if it earned 7.75% interest per year?